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SURFACE TRANSPORTATION BOARD

DECISION

Docket No. EP 664 (Sub-No. 2)

PETITION OF THE WESTERN COAL TRAFFIC LEAGUE TO INSTITUTE A RULEMAKING PROCEEDING TO ABOLISH THE USE OF THE MULTI-STAGE DISCOUNTED CASH FLOW MODEL IN DETERMINING THE RAILROAD INDUSTRY'S COST OF EQUITY CAPITAL

Digest:[1] This decision denies the petition of Western Coal Traffic League (WCTL) to reconsider a Board decision served on October 31, 2016, which denied WCTL's request to abolish use of the multi-stage discounted cash flow model in the agency's estimation of the railroad industry's cost of capital.

Decided: April 26, 2017

On August 27, 2013, the Western Coal Traffic League (WCTL) filed a petition requesting that the Board institute a rulemaking to abolish the use of the multi-stage discounted cash flow model (MSDCF) in determining the railroad industry's cost of equity capital and instead rely exclusively on the Capital Asset Pricing Model (CAPM). (WCTL Pet. 1, Aug. 27, 2013.) On September 16, 2013, the Association of American Railroads (AAR) replied in opposition to WCTL's petition. (AAR Reply 1, Sept. 16, 2013.) On December 20, 2013, the Board served a decision granting WCTL's petition to open a rulemaking proceeding on issues regarding the cost-of-capital calculation (without making any determinations on the merits), and by decision served April 2, 2014, the Board sought public comments on those issues.

In a decision served on October 31, 2016 (Decision), the Board declined to issue a Notice of Proposed Rulemaking and closed this proceeding. The Board concluded that the cost-of-equity component of its annual cost-of-capital estimate for the railroad industry should be calculated, as it has been since 2009, by using a simple average of the estimates produced by CAPM and the MSDCF model.

WCTL filed a petition for reconsideration on November 21, 2016, and AAR filed a reply in opposition on December 12, 2016. For the reasons discussed below, WCTL's petition for reconsideration will be denied.

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[1] The digest constitutes no part of the decision of the Board but has been prepared for the convenience of the reader. It may not be cited to or relied upon as precedent. Policy Statement on Plain Language Digests in Decisions, EP 696 (STB served Sept. 2, 2010).

BACKGROUND

Each year, the Board determines the railroad industry's current cost of capital and then uses this figure in a variety of regulatory proceedings, including railroad revenue adequacy determinations, rate reasonableness cases, feeder-line applications, rail line abandonments, trackage rights cases, and rail merger reviews. The annual cost-of-capital figure is also used as an input in the Uniform Railroad Costing System.

The Board calculates the cost of capital as the weighted average of the cost of debt and the cost of equity, with the weights determined by the capital structure (the fraction of capital from debt or equity on a market-value basis) of the railroad industry. See Methodology to be Employed in Determining the R.R. Indus. Cost of Capital, EP 664, slip op. at 6 (STB served Jan. 17, 2008). While the cost of debt is observable and readily available, the cost of equity (the expected return that equity investors require) can only be estimated. Id. Thus, estimating the cost of equity requires relying on appropriate finance models. Id. Since 2009, the Board has used a simple average of the estimates produced by CAPM and the Morningstar/Ibbotson MSDCF model to estimate the cost of equity. See Decision at 2-8. In the Decision, the Board declined to change that methodology.

DISCUSSION AND CONCLUSIONS

A party may seek reconsideration of a Board decision by submitting a timely petition that (1) presents new evidence or substantially changed circumstances that would materially affect the case, or (2) demonstrates material error in the prior decision. 49 U.S.C. § 1322(c); 49 C.F.R. § 1115.3. The Board generally does not consider new issues raised for the first time on reconsideration where those issues could have and should have been presented in the earlier stages of the proceeding. Tex. Mun. Power Agency v. Burlington N. & Santa Fe Ry., 7 S.T.B. 803, 804 (2004). In a petition alleging material error, a party must do more than simply make a general allegation; it must substantiate its claim of material error. See Can. Pac. Ry.—Control—Dakota, Minn. & E. R.R., FD 35081, slip op. at 4 (STB served May 7, 2009) (denying petition for reconsideration where the petitioner did not substantiate the claim of material error). Moreover, the error must be one that "would mandate a different result." See Montezuma Grain Co. v. STB, 339 F.3d 535, 541-42 (7th Cir. 2003); Or. Int'l Port of Coos Bay—Feeder Line Application—Coos Bay Line of Cent. Or. & Pac. R.R., FD 35160, slip op. at 2 (STB served Mar. 12, 2009).

Here, WCTL does not allege new evidence or substantially changed circumstances, and it has not shown material error in the Decision. Contrary to WCTL's argument, (WCTL Pet. 2, Nov. 21, 2016), the Board gave meaningful consideration to WCTL's arguments and evidence. Specifically, the Board disagreed with WCTL that the Board should adopt a CAPM-only approach and adjust its existing CAPM calculation to incorporate a market-risk premium (MRP) of five percent or lower. But this disagreement with WCTL's positions does not mean the Board failed to consider relevant evidence in declining to propose a new cost of equity methodology, a matter within the Board's considerable discretion. Because WCTL has not presented any arguments on reconsideration demonstrating that the Board's action constituted material error, WCTL's petition is denied.

I. WCTL's MSDCF Arguments

The Board provided a clear and overarching response to WCTL's criticisms of the Morningstar/Ibbotson MSDCF. As the Board explained, because the true cost of equity is never revealed, there simply is no single, correct way to estimate it. Decision at 2. Accordingly, all models will "err" to some extent, but by using multiple models that are based on different perspectives and rely on different inputs, the Board benefits because anomalies affecting one model are less likely to affect the other. Decision at 12.

WCTL's arguments against the Morningstar/Ibbotson MSDCF, including the reconsideration arguments addressed below, assume that there is one "best" way of estimating the cost of equity or that one model has definite, measurable advantages in accuracy over the other, but as noted, those assumptions are incorrect. (See AAR Opening Comments 28-29, Sept. 5, 2014 (citing academic sources, including analysis indicating that "[n]o individual method provides the necessary level of precision" and "[r]eliance on any single method or preset formula is inappropriate"); WCTL Reply Comments 19, Oct. 29, 2007, Methodology to be Employed in Determining the R.R. Indus. Cost of Capital, EP 664 ("the STB should not blindly follow any single model to determine the [cost of equity]").)

Use of CAPM by Private Companies. WCTL argues that the Decision "largely ignored or minimized WCTL's evidence showing that the market relies on the CAPM and not the MSDCF and uses lower [cost-of-equity] and [cost-of-capital] values for the railroad industry." (WCTL Pet. 3, Nov. 21, 2016.) WCTL argues that it demonstrated that the recognized consensus in the financial and investment community is to rely solely on CAPM, that MSDCF models are generally not used to estimate the cost of equity, and that the Board should use the same methodology and inputs as the financial and investment community. Id. at 3-4 (citing survey results and testimony from AAR's expert witness indicating that a large percentage of companies use CAPM).

As an initial matter, the Decision and prior Board decisions have repeatedly acknowledged this fact. See Decision at 3 (noting prior observation that "CAPM was a more current and widely used approach to estimating the cost of equity"); Methodology to be Employed in Determining the R.R. Indus. Cost of Capital, EP 664, slip op. at 6 (STB served Aug. 20, 2007) (stating that CAPM "is now the dominant model used by companies and investors in the marketplace"). Indeed, the Board mentioned this fact in the original decision in which it announced its intent to consider adding an MSDCF model to the cost-of-capital determination. Methodology to be Employed in Determining the R.R. Indus. Cost of Capital, EP 664, slip op. at 13-14, 18 (STB served Jan. 17, 2008) (announcing MSDCF proceeding, notwithstanding recognition that "the CAPM approach has become the industry norm to estimate the cost of equity"). Thus, awareness of businesses' prevalent use of CAPM was part of the decision-making that led to the Board's adoption of MSDCF together with CAPM.[2] The Board

[2] Ultimately, after considering both CAPM's prevalent use and its strengths and weaknesses, the Board concluded that it was preferable to use CAPM in conjunction with the (continued…)

also acknowledged this in the Decision. See Decision at 3 (quoted above).[3]

In addition, combining the CAPM and MSDCF reduces variability, leading to a more stable overall result—a legitimate interest for regulators such as the Board. Decision at 2, 12-13. WCTL disagrees with that policy judgment, arguing that the Board must choose the approach currently used by the financial and investment markets. (WCTL Pet. 3-4, 10, Nov. 21, 2016.) But the Board's policy disagreement with WCTL on the proper regulatory trade-off does not constitute material error, particularly where the Board is well-suited to make that judgment. See, e.g., BNSF Ry. v. STB, 526 F.3d 770, 776 (D.C. Cir. 2008) ("[T]he Board made a policy judgment that the cost savings and increase in predictability of the Board's jurisdiction, among other factors, outweigh any gains in accuracy from the railroads' or shippers' adjustment proposals. That kind of judgment call, which balances inherently incommensurable costs and benefits, falls within the expertise of the agency . . . ."). In proposing and then adopting the MSDCF, the Board determined that relying on two models is more appropriate for its purposes, even if most private companies choose a different approach for different reasons. There are a variety of methodologies available to estimate the cost of equity, and it would create too much unpredictability if the Board continually adopted different models as they are brought to the Board's attention, especially where there is no measurable increase in accuracy (because the true cost of equity is never revealed, only estimated).[4] It is a legitimate policy goal that the Board strive to maintain a consistent model on which stakeholders can rely, rather than adjusting the approach whenever there is a new model or the model results are unfavorable to a particular party. This policy goal would not necessarily be shared by the many private companies using CAPM today.

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Morningstar/Ibbotson MSDCF. Use of a Multi-Stage Discounted Cash Flow Model in Determining the R.R. Indus. Cost of Capital, EP 664 (Sub-No. 1) (STB served Jan. 28, 2009).

[3] WCTL argues that the Decision is internally inconsistent in expressing unwillingness to incorporate a Blume adjustment to the beta component of CAPM due to "lack of consensus" while declining to adopt a CAPM-only approach even though most companies use it. (WCTL Pet. 2, Nov. 21, 2016.) This argument misstates the Decision's reasoning. The Decision held that WCTL's arguments advocating a Blume adjustment—including WCTL's unproven allegation of a consensus in favor of the adjustment—did not provide adequate support for the Board to adopt the adjustment. Decision at 16-17. Likewise, WCTL's reliance on a consensus among companies in favor of CAPM does not support adoption of WCTL's proposal to eliminate the MSDCF where the regulatory interest in limiting volatility is an appropriate consideration notwithstanding such a consensus.

[4] As noted in the Decision and above, there is no single, correct way to estimate the cost of equity. Decision at 2. Thus, the Board is not persuaded by WCTL's argument that the Board's cost-of-capital methodology must be incorrect because its results do not match the results of a different cost-of-capital analysis performed by Morgan Stanley. (WCTL Pet. 8-9 n.9, Nov. 21, 2016.) See R.R. Cost of Capital—2015, EP 558 (Sub-No. 19), slip op. at 2-3 (STB served Aug. 5, 2016) (because there is no one "correct" methodology, the fact that the results of one analyst or company are different from the results under the Board's model does not provide a reason to switch methodologies).

The differing priorities of regulators and companies are supported by the record, which demonstrates that using multiple models to estimate the cost of equity is the prevailing practice in regulatory settings. For example, a staff report issued by the Wireline Competition Bureau of the Federal Communications Commission (FCC) in 2013 observes that DCF is the most widely used model in regulation[5] and endorses the use of DCF together with CAPM due to the different limitations of each and the fact that "no single model can be counted on exclusively to provide a precise estimate of the cost of equity." (See AAR Reply Comments 3, 6, Nov. 4, 2014, citing In re. Connect Am. Fund, 28 FCC Rcd. 7123, 7146-47 (2013).) Similarly, the Federal Energy Regulatory Commission (FERC) has adopted a DCF model but uses it in conjunction with other methodologies. (See, e.g., AAR Reply Comments 6-7, Nov. 4, 2014, citing Distrigas of Mass. Corp., 41 FERC ¶ 61,205, 61,550 (1987); Coakley v. Bangor Hydro-Electric Co., 147 FERC ¶ 61,234, 62,464 (2014).) And many state utility regulators use a DCF model augmented by consideration of CAPM or other models. (See AAR Reply Comments 2, 7 n.12, 8-10, Nov. 4, 2014, citing case law, including cases in which WCTL members advocated multiple models and/or DCF models).[6] Although WCTL argues that the practices of FERC and state utility regulators are inapposite, (see WCTL Reply Comments 13-14, Nov. 4, 2014; WCTL Pet. 19 n.25, Nov. 21, 2016), promoting stability and limiting unpredictability are shared priorities, regardless of the differences in the regulatory frameworks. See Decision at 2, 12. Finally, in the proceeding in which the Board adopted the MSDCF model, the United States Department of Transportation (DOT) filed comments stating that DOT "continues to support generally the use of MS-DCF in conjunction with CAPM to improve the reliability and stability of the STB's cost of equity calculation, and supports in particular the Board's choice of the Morningstar/Ibbotson MS-DCF model." (DOT Comments 1, Sept. 15, 2008, Use of a Multi-Stage Discounted Cash Flow Model in Determining the R.R. Indus. Cost of Capital, EP 664 (Sub-No. 1).)

Accuracy Claims. WCTL also argues that it is inappropriate for the Board to rely on an interest in stability in light of WCTL's claims that the Morningstar/Ibbotson MSDCF is less accurate than CAPM. (WCTL Pet. 9-10, Nov. 21, 2016.) As discussed above, WCTL's argument relies on incorrect assumptions. Because the cost of equity cannot be measured, claimed improvements in the "accuracy" of a cost-of-equity estimate—such as WCTL's allegations in this proceeding—are particularly difficult to prove, and perceived accuracy

[5] It is not surprising that the Board and other regulators rely on DCF models, which directly project the overall cash flow of the firm—a characteristic that is closely related to rate regulation.

[6] WCTL cites a 2011 decision of the Canadian Transportation Agency (CTA), choosing to use CAPM alone. (WCTL Reply Comments 14-15, Nov. 4, 2014.) However, the analysis cited by WCTL compares the adoption of CAPM to a prior CTA approach, in which the agency decided each year how to weight the results of different available models in determining the cost-of-equity estimate for that year. See id. In that context, it is unsurprising that the CTA would find that adopting a constant approach, using a model that does not change from year to year, "would reduce uncertainty in the regulatory environment" and improve transparency. See id. Moreover, as discussed above, using CAPM alone does not appear to be a typical approach among U.S. regulators. And as AAR points out, the use of multiple models finds substantial support in the academic literature. (See AAR Opening Comments 28-29, Sept. 5, 2014.)

differences cannot be expressed as certainties.[7] In contrast, the stability provided by using multiple models is a legitimate goal shared by numerous other regulators, advocated by WCTL members in their own regulatory proceedings, and adopted through a policy judgment that falls squarely within the expertise of the agency.

Growth Rates and Cash Flow Definitions. WCTL argues that the Board failed to explain why it was appropriate to accept the Morningstar/Ibbotson model's treatment of growth rates. (See WCTL Pet. 11, Nov. 21, 2016.) However, the explanation that WCTL claims is missing can be found not only in the Decision (at 13-14), but also in the Board's decision adopting the Morningstar/Ibbotson MSDCF, in response to very similar arguments from WCTL. See Use of a Multi-Stage Discounted Cash Flow Model in Determining the R.R. Indus. Cost of Capital, EP 664 (Sub-No. 1), slip op. at 8-13 (STB served Jan. 28, 2009) (addressing WCTL objections to the Morningstar/Ibbotson model, including averaging in the second stage, treatment of growth rates, and cash flow definition in the third stage).

Similarly, WCTL asserts that the Decision did not consider its argument that a different MSDCF model, used elsewhere by the Brattle Group (the firm of AAR's expert witness), helps to demonstrate that the Morningstar/Ibbotson MSDCF is flawed and should be replaced with a CAPM-only approach. (See WCTL Pet. 10-12, Nov. 21, 2016 (citing WCTL Reply Comments 23-28 & Ex. 1, Nov. 4, 2014).) WCTL referenced the Brattle Group's MSDCF model as support for its arguments regarding alleged problems with growth rates and cash flow definitions in the Morningstar/Ibbotson MSDCF. (See WCTL Pet. 3, Nov. 21, 2016 (citing WCTL Reply Comments 23-28 & Ex. 1, Nov. 4, 2014).) But the Board explained in the Decision why WCTL's criticisms of these growth rates and cash flow definitions do not actually reflect defects in the model. See Decision at 13-14. Therefore, it was not necessary for the Decision to also discuss an alternative model that, according to WCTL, underscores these alleged defects and confirms that the CAPM results are reasonable. (See WCTL Reply Comments 24-25, 27-28, Nov. 4, 2014.) The Board also need not address WCTL's suggestion that, as an alternative to abandoning the Morningstar/Ibbotson MSDCF model, the Board instead replace it with a different MSDCF, like the one used by the Brattle Group. (See WCTL Pet. 13 n.16, Nov.-21, 2016.) Although WCTL discussed the Brattle Group MSDCF in support of its argument that the Board should stop using MSDCF altogether, its comments and reply comments did not propose that the Board adopt the Brattle Group MSDCF. Thus, WCTL's suggestion that the Board adopt a Brattle Group-like MSDCF was proffered for the first time on reconsideration. See Tex. Mun. Power Agency, 7 S.T.B. at 804 (issues raised initially on reconsideration generally not considered if they could have and should have been presented earlier).[8]

[7] WCTL also argues that the Decision did not consider the effect of combining "flawed" results from the Morningstar/Ibbotson MSDCF with the otherwise accurate data and analysis in the CAPM. (WCTL Pet. 9-10, Nov. 21, 2016.) But as noted, the Board rejected WCTL's argument that the Morningstar/Ibbotson MSDCF model is in fact flawed, (Decision at 11-18), thereby making this corresponding argument moot.

[8] Similarly, we reject WCTL's new suggestion that the Board adopt a trailing adjustment, analogous to adjustments used in the Board's rail cost adjustment factor. (See WCTL Pet. 13 n.16, Nov. 21, 2016.) WCTL has provided no explanation or evidence as to how

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Gap between CAPM and MSDCF. According to WCTL, the Decision ignores WCTL's claim that, even though the gap between the results of the MSDCF and CAPM has narrowed in recent years, it "remains substantial." (WCTL Pet. 5, Nov. 21, 2016.) WCTL is incorrect, as the Decision clearly acknowledges the continued gap between the two models. Decision at 11-13 (noting, among other things, that for 2015 the CAPM estimate for the cost of equity was 10.95%, while the MSDCF estimate was 10.97%, and the results of the two models fluctuate from year to year).[9]

WCTL also argues that "while acknowledging that the MSDCF has exceeded the CAPM for eight consecutive years . . . the Decision ignores the fact that the overstatement existed for the prior ten years . . . ." (WCTL Pet. 6, Nov. 21, 2016.) This argument is both immaterial and unpersuasive. On opening, WCTL emphasized the 4.12% average difference between CAPM and MSDCF results for 2008-2012. (WCTL Opening Comments 9, Sept. 5, 2014.) The Decision noted that the gap has narrowed since then, with the average difference falling to 2.75% if 2013-15 results are included. Decision at 8-9, 11. In its reconsideration petition, WCTL now suggests that it was an error for the Board not to include the prior years (1998-2007) in its analysis, which WCTL had also mentioned in its comments. (See WCTL Pet. 6, Nov. 21, 2016; WCTL Opening Comments 10, Sept. 5, 2014.) But the average gap for 1998-2007 was 2.26% —even lower than the average for the time period referenced in the Decision. And the average difference between the models for the entire 1998-2015 time period was 2.48%. Accordingly, referencing this prior time period would have supported the Board's conclusions that the gap has fluctuated over time and narrowed in recent years. See Decision at 12-13 (including chart showing results of the two models over time); see also Use of a Multi-Stage Discounted Cash Flow Model in Determining the R.R. Indus. Cost of Capital, EP 664 (Sub-No. 1), slip op. at 5 (STB served Aug. 11, 2008) (for 1998 to 2006, "the Morningstar/Ibbotson model produces a cost of equity ranging from 11.6% to 14.6%, while the CAPM yields estimates between 9.7% and 12.7%").[10]

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this adjustment would be calculated or how it would improve the MSDCF model, and it raised the proposal for the first time on reconsideration.

[9] WCTL argues that the gap would be "much larger" if the Board adopted WCTL's proposed changes to CAPM. (WCTL Pet. 5, Nov. 21, 2016.) The reasons why the Board exercised its discretion not to adopt WCTL's CAPM proposals are described in the Decision and below. See Decision at 15-19.

[10] WCTL takes issue with the Decision's citation of a chart from a prior case that was criticized by the reviewing court. (See WCTL Pet. 6-7, Nov. 21, 2016 (citing Decision at 12 n.13).) WCTL's criticism is misplaced. As detailed by AAR, (see AAR Reply 11 n.18, Dec. 12, 2016), the problem with the chart in AEP Texas North Co. v. STB, 609 F.3d 432 (D.C. Cir. 2010) was not in the data it included but rather in how the Board relied on it. Here, the Board cited the chart for the incontrovertible proposition that cost-of-equity models produce different outcomes over different time periods, a fact that is also fully supported by the chart on page 13 of the Decision, which simply tracks the results of the Board's two models over time.

CAPM Sensitivity to Interest Rates. WCTL also makes a number of arguments in opposition to the Board's conclusion that, because the risk-free rate is an element of the CAPM, low interest rates are one reason why CAPM results might have been lower in the past several years. (WCTL Pet. 7-8, Nov. 21, 2016 (citing Decision at 12).) WCTL claims that MSDCF values have exceeded CAPM values even in years when interest rates were higher, (WCTL Pet. 7, Nov. 21, 2016), and that the decline in interest rates would also have caused the MSDCF return to fall.

WCTL's contentions are unconvincing. As an initial matter, the Decision did not assert that low interest rates alone explain the gap that emerged between MSDCF and CAPM in 2011 and 2012. The Decision merely observed that CAPM may be susceptible, in general, to anomalous risk-free rate data at times, and having a second model that is not affected in the same way helps to protect the results from variance due to such a data anomaly. See Decision at 12 (referring to an instance where "one model is skewed by an unforeseen factor"). That is a far different point than the one WCTL characterizes the Decision as making. (See WCTL Pet. 7-8, Nov. 21, 2016 (implying that the Board indicated that CAPM's interest rate sensitivity fully accounts for the difference between the results of the CAPM and MSDCF).) Indeed, it would not make sense to assume that CAPM's interest rate sensitivity fully accounts for the difference between the results of the CAPM and MSDCF, in part because the risk-free rate is not the only component of CAPM. For instance, railroad beta has increased from less than one to as high as 1.3499. R.R. Cost of Capital—2006, EP 558 (Sub-No. 10), slip op. at 7 (STB served Apr. 15, 2008) (beta calculation of 0.8604); R.R. Cost of Capital—2013, EP 558 (Sub-No. 17), slip op. at 9 (STB served July 31, 2014) (beta calculation of 1.3499).

In any event, it is indisputable that a drop in the risk-free rate lowers CAPM directly, and on a one-for-one basis. See, e.g., Decision at 8 ("Under CAPM, the cost of equity is equal to $RF + \beta \times MRP$ . . . ."). Therefore, it is inarguable that historically low interest rates have led to a historically low estimate of the cost of equity using CAPM. In contrast, the effect of lower interest rates on the MSDCF estimate is less clear. While a reduction in interest rates can lead to an increase in stock prices, which could reduce the MSDCF cost-of-equity estimate, the effect is not as direct or unambiguous as is the case with CAPM.

WCTL further argues that there is value in having a cost-of-equity model that incorporates some sensitivity to interest rate levels, "since investors demand compensation for taking on risk, and equities necessarily compete with debt, including risk-free government debt." (WCTL Pet. 8, Nov. 21, 2016.) This is true, and it is consistent with the Board's decision to rely in part on CAPM, rather than just using an MSDCF model alone. But that does not mean that the Board must rely *solely* on a model that is affected by interest rate levels.

Growth Rate Projections and Stock Buybacks. WCTL also argues that the Decision failed to address its evidence purporting to show that earnings-per-share growth estimates provided by market analysts, which feed into stages one and two of the MSDCF, are unlikely to be accurate. (WCTL Pet. 11 n.12, Nov. 21, 2016.) The Board rejected a similar argument from WCTL in 2009. See Use of a Multi-Stage Discounted Cash Flow Model in Determining the R.R. Indus.'s Cost of Capital, EP 664 (Sub-No. 1), slip op. at 14 (STB served Jan. 28, 2009). In this proceeding, WCTL attempted to buttress its prior argument by citing various academic

articles questioning analysts' growth estimates. (See WCTL Opening Comments 17-19 & Ex. 3, Sept. 5, 2014). However, there is no academic consensus on this issue—a fact evident from materials cited in both WCTL's and AAR's pleadings. (See WCTL Pet. 19-20, Nov. 21, 2016 (citing Aswath Damodaran, Equity Risk Premiums (ERP): Determinants, Estimation & Implications – 2016 Edition, at 91, available at http://ssrn.com/abstract=2742186, an article that relies on an "implied" MRP model, which is based on a two-stage MSDCF and analysts' growth estimates); see also AAR Reply Comments 3, 6, Nov. 4, 2014, citing In re. Connect Am. Fund, 28 FCC Rcd. 7123 (2013) (which cites conflicting academic views regarding analyst forecasts, at 7149 & nn.101, 103).) The new material that WCTL added in this proceeding (beyond its similar argument in Docket No. EP 664 (Sub-No. 1)) merely highlights that academic writers continue to disagree regarding this issue, just as they did in 2009—a fact that does not raise a significant problem with the Board's approach. Accordingly, there was no need for the Decision to address WCTL's previously-rejected argument again.

Similarly, WCTL reiterates its claims that stock buybacks produce an upward bias in MSDCF growth rate projections. (WCTL Pet. 12-13, Nov. 21, 2016, citing Decision at 14.) The Board found in the Decision that WCTL had not provided adequate support for its claim that buybacks caused a distortion. Decision at 14 (noting that, among other things, buybacks do not cause an overstatement in the cost of equity because the MSDCF assumes that railroads maximize shareholder equity, making the effect of stock buybacks neutral). On reconsideration, WCTL focuses again on the smaller earnings-per-share denominator caused by a stock buyback. (See WCTL Pet. 13, Nov. 21, 2016.) But WCTL does not acknowledge or account for the offsetting effect of the buyback pulling cash flow forward in time. See Decision at 14; AAR Reply 12, Dec. 12, 2016; AAR Opening Comments, V.S. Villadsen 14-18, Sept. 5, 2014 (even if the smaller number of shares resulting from a stock buyback leads to higher earnings-per-share growth rates—via the lower number of shares in the denominator—that effect would be offset by the additional distribution of cash flow at the time of the buyback).

Circularity Claims. WCTL also renews its circularity argument—the idea that high cost-of-equity estimates under the MSDCF enable the railroads to raise their rates, which leads analysts to project higher earnings growth, which then produces a higher cost-of-equity estimate the following year. This argument was raised by WCTL but rejected by the Board when it first adopted the Morningstar/Ibbotson MSDCF. Specifically, in Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital, EP 664 (Sub-No. 1), slip op. at 9-10 (STB served Jan. 28, 2009), the Board found that the circularity effect was unlikely because most rail rates are unregulated, meaning that analysts' growth projections are unlikely to be driven by increases in the small proportion of rates that are potentially subject to review before the Board, and that instead projections are more likely driven by market forces. The Board also noted in the 2009 decision that growth is not driven solely by rates but can also be driven by volume and productivity. The Board reaffirmed these conclusions in the Decision. Decision at 14. Nonetheless, WCTL now contends that the Decision disregarded WCTL's allegations that traffic above the jurisdictional threshold supplies the bulk of railroad profits, and volume and productivity do not account for the surge in railroad profits since 2009. (WCTL Pet. 11 n.12, Nov. 21, 2016 (citing Decision at 14 & WCTL Opening Comments 27-30, Sept. 5, 2014).)

WCTL's first claim—that the Decision's analysis is incorrect because traffic above the jurisdictional threshold supplies the bulk of railroad profits—rests on a faulty assumption. WCTL equates unregulated rates with rates below the jurisdictional threshold, and it equates those rates that are potentially subject to review before the Board with rates above the jurisdictional threshold. But, as the Board indicated in the Decision, not all rates above the jurisdictional threshold are regulated—some of this traffic moves under contract, (see 49 U.S.C. § 10709(c)), and some of it is exempted from regulation, (see 49 U.S.C. § 10502(a)). Although it acknowledges that the Commodity Revenue Stratification Reports do not identify precisely whether or not traffic is contract or exempted, WCTL states that coal and chemicals account for about half of the revenues and profits for traffic above the jurisdictional threshold, and neither commodity is exempt. (See WCTL Opening Comments 28-29, Sept. 5, 2014.) But much of the traffic in these commodity groups moves under contract. See, e.g., U.S. Rail Serv. Issues, EP 724, slip op. at 7 (STB served Dec. 30, 2014) (noting that the vast majority of coal rail traffic nationwide moves under contract). In any event, traffic that is above the jurisdictional threshold, is not subject to a contract, and has not been exempted, is still only potentially subject to the Board's rate jurisdiction, as the Board makes a fact-specific market dominance determination in individual cases. See 49 U.S.C. § 10707(a), (d)(2)(A).

WCTL makes a related argument that the Decision's rationale itself incorporates circularity, purportedly because a lower cost-of-equity estimate would lower the jurisdictional threshold, making more rates subject to challenge. (See WCTL Opening Comments 26, Sept. 5, 2014.) That argument is undermined by the same faulty assumption about rates above and below the jurisdictional threshold.

Similarly, WCTL argues that the Decision did not support its "implicit assumption" that rate increases on traffic below the jurisdictional threshold substantially exceed rate increases on traffic above the threshold. (WCTL Opening Comments 26-27, Sept. 5, 2014.) The Board made no such assumption, implicit or otherwise. Because rates that are potentially subject to review before the Board make up a fraction of railroad traffic, even a large increase in those rates could have a much smaller effect than a relatively lesser increase in rates that are not potentially subject to regulation. WCTL argues that even if rate increases on traffic below the threshold did substantially exceed increases on traffic above the threshold, "it would still not support a [cost of equity] that facilitated rate increases on captive traffic." Id. at 27. But, as discussed above, because the circularity effect WCTL alleges is unlikely, the Board's cost-of-capital determination does not "facilitate" rate increases.

WCTL's second argument—that volume and productivity do not account for the surge in railroad profits since 2009—is based on a mischaracterization of the Decision. While the Board made a general observation that the growth rates projected by analysts can be driven by volume and productivity, it did not find, as WCTL implies, that growth rates for a particular time period were based solely on volume and productivity. See Decision at 14; Use of a Multi-Stage Discounted Cash Flow Model in Determining the R.R. Indus.'s Cost of Capital, EP 664 (Sub-No. 1), slip op. at 9-10 ("growth is not driven solely by rates, but can be driven by volume and productivity as well") (emphasis added). Moreover, this allegation is part of WCTL's over-arching argument that predicted increases in rates that are potentially subject to Board review

have a significant, reliable effect on analysts' growth projections—which relies on faulty assumptions, for the reasons discussed above.

Moreover, WCTL has not shown that increases in forecasted cash flows under the assumptions of the Morningstar/Ibbotson MSDCF lead to increases in the estimated cost of equity, as opposed to increased stock prices. As AAR's expert witness pointed out, the cost of equity would increase only if the non-diversifiable risk increased. (See AAR Reply Comments, V.S. Villadsen 5-9, Nov. 4, 2014.) The Board agrees with the premise of the AAR's argument: if investors expect earnings to increase without any change in non-diversifiable risk, stock prices will also increase, and the new cash flows would be discounted by the same factor (the cost of equity) to derive the new stock price. Id. Therefore, AAR is correct that WCTL's circularity argument ignores the fundamental theory of efficient markets (the relationship between cash flow, risk, and stock prices) on which both MSDCF and CAPM rest. (AAR Reply Comments 16, Nov. 4, 2014).

II. Criticisms of CAPM

WCTL renews several of its CAPM arguments on reconsideration, but the Board's analyses of these issues do not constitute material error. In particular, WCTL continues to criticize the Board's use of a historical MRP average starting from 1926, instead of WCTL's 50-year rolling historical average that would produce an MRP of 4.7%. (WCTL Opening Comments 32 & V.S. Triantis 12, Sept. 5, 2014.) The Decision found the basis for WCTL's position insufficient, stating that WCTL had not indicated why the period should be 50 years and not 40 or 60, for example, and that incorporating data for all the years for which there is data is preferable to picking a range of years that could be viewed as arbitrary. See Decision at 18. WCTL implies on reconsideration that it does not matter whether it provided a valid justification for the 50-year rolling historical average it proposed, because the 50-year approach was not a "magic figure," but merely one example of evidence showing that, for an MRP estimation approach to be valid, it must produce a result of five percent or lower. (See WCTL Pet. 14, 17-18, Nov. 21, 2016; see also WCTL Opening Comments 31, Sept. 5, 2014 (proposing the five percent MRP ceiling).)[11]

As a threshold matter, we reject WCTL's position that the Board must select an MRP estimation approach that produces a result of five percent MRP or lower. (See WCTL Pet. 14, 17-18, Nov. 21, 2016.) Choosing a methodology in order to produce a result below a certain level would be a form of outcome-oriented decision-making that the Board prefers to avoid. Moreover, it would lead to unstable regulation and administrative inefficiency, because the results of calculations (such as a 50-year rolling average) change over time as their inputs

[11] In seeking reconsideration, WCTL also raises an argument against using any historical data to estimate MRP, stating that the cost of capital is a forward-looking determination, and "current values ultimately prevail." (WCTL Pet. 15, Nov. 21, 2016.) This directly contradicts the position that WCTL took in its comments and the reasoning of its expert witness. (See WCTL Opening Comments 32 & V.S. Triantis 9-10, Sept. 5, 2014.)

change, and the agency would need to alter or replace the calculation to continue producing the chosen result.

In any event, like estimating the overall cost of equity, there is no single correct method for estimating MRP. Decision at 17; see also AAR Reply Comments 18-19, 21, Nov. 4, 2014 (citing case law and economic literature, including an article combining information from 20 of the most prominent MRP models). Thus, although WCTL cites only MRP estimates of five percent or lower, those are far from the only MRP numbers available. (See AAR Reply Comments 19-21 & V.S. Villadsen 16-17 (citing analysis by Federal Reserve Bank of New York economists, Bloomberg forward-looking estimates, and economic literature to indicate the wide range of MRP estimates, including estimates above five percent).) The FCC staff report discussed above refers to surveys that found average MRP estimates of 6%, 6.5%, and 3.83% (relative to the 10-year Treasury bond). In re. Connect Am. Fund, 28 FCC Rcd. at 7153-54. And, as the Decision stated, in their own proceedings before state regulatory agencies, WCTL members rely on MRP estimates above five percent. See Decision at 18. WCTL's argument that state utility proceedings are distinguishable, (see WCTL Pet. 19 n.25, Nov. 21, 2016), is unavailing given that the MRP "depicts the expected returns for the market as a whole," (WCTL Opening Comments 6, Sept. 5, 2014), not only railroads or utilities.

WCTL questions the Decision's citation of an AAR argument that the 1926-based MRP "lies well within the ranges from the surveys." (WCTL Pet. 19 & n.25, Nov. 21, 2016 (citing Decision at 18).) In making this statement, AAR quoted the FCC staff report discussed above, which describes three surveys. (See AAR Reply Comments 21-22 & V.S. Villadsen 23 n.52, Nov. 4, 2014.) One survey reported an MRP range from 3% to 10%; the second reported a range from 2% to 12%; and the third reported a "surprising" range of -32% to 98%. In re. Connect Am. Fund, 28 FCC Rcd. at 7153-54. The MRP estimates produced by the 1926-based average for every year since 2008 (when the Board adopted this approach) are within each of those three ranges. See, e.g., R.R. Cost of Capital—2015, EP 558 (Sub-No. 19), slip op. at 9 (STB served August 5, 2016) (6.90% MRP estimate). We do note that the surveys described in the FCC staff report overlap in part, but not entirely, with the surveys that WCTL cited in its comments. Thus, although this oversight does not affect the outcome here, the Decision should have indicated (as AAR did) that it was referring to the surveys described in the FCC staff report rather than "the surveys used by WCTL." See Decision at 18.

WCTL argues that a longer-term average is less accurate because it is less responsive to recent experience, even if historical patterns repeat themselves. (WCTL Pet. 16-17, Nov. 21, 2016.) However, it is not error to prefer our existing approach to one that will result in both a higher standard error (part of the way the statistical accuracy of an estimate is measured, with a higher standard error indicating a less precise estimate) and higher volatility than our existing methodology. First, because WCTL would evaluate MRP using a shorter time period, its estimate naturally comes with a higher standard error. Second, because WCTL's proposal uses a rolling average (necessary to accommodate a fixed time period), it will have higher volatility because there are changes at both ends of the analysis. As a good or bad year rolls on or off, it will inevitably shift the estimated MRP. The Board determined, in its discretion, that the use of the 1926-based MRP was preferable to an approach that would lead to higher volatility.

WCTL's remaining arguments are also without merit. WCTL expresses concern that the 1926-based MRP estimate is stated in nominal terms rather than real terms. (WCTL Pet. 16-17, Nov. 21, 2016.) But WCTL fails to adequately explain its concern, especially given that WCTL's proposed 50-year historical rolling average would also be in nominal terms. In any event, WCTL does not appear to have made this argument prior to reconsideration. WCTL also disputes the Board's determination in the Decision that some of the MRP estimates based on shorter periods make subjective adjustments, such as "normalizing" interest rates, which could be problematic because the market return reflects all of the adjustment and not just the MRP. Decision at 18. Although WCTL calls this concern "contrived," it appears to agree that normalizing interest rates would be a problem for several reasons. (WCTL Pet. 17 & n.22, Nov. 21, 2016 (acknowledging that a normalized interest rate departs from standard practice, is unnecessary where the cost of equity is recalculated annually, and would require a commitment to make a downward adjustment in the market risk-free rates at other times).) Finally, although WCTL argues that the 1926-based MRP has a poor correlation to actual returns, citing analysis by Professor Aswath Damodaran, (see WCTL Pet. 19-20, Nov. 21, 2016), there is no apparent consensus among economists regarding the estimation of MRP. (See AAR Reply Comments 18-19, 21, Nov. 4, 2014 (citing, among others, a report concluding that the historical mean is simple to calculate and "quite difficult to improve upon when considering out-of-sample predictability performance measures").) In addition, the analysis by Professor Damodaran cited by WCTL relies on an "implied" MRP model, which is based on a two-stage MSDCF and analysts' growth rate projections—approaches that WCTL strongly opposes in this proceeding. See Aswath Damodaran, Equity Risk Premiums (ERP): Determinants, Estimation & Implications – 2016 Edition, at 91, available at http://ssrn.com/abstract=2742186 (cited in WCTL Pet. 19-20, Nov. 21, 2016). And again, to the extent WCTL is arguing against any use of a historical MRP, it contradicts the position it took in this proceeding until now.

Accordingly, WCTL has not supported its argument that the Board should select an MRP estimation approach on the basis that it produces a result of five percent or lower.

CONCLUSION

For the reasons stated above, WCTL has not shown material error in the Decision. Thus, WCTL's petition for reconsideration will be denied.

It is ordered:

1. The petition for reconsideration is denied.

2. This decision is effective on its service date.

By the Board, Board Members Begeman, Elliott, and Miller.